The Nations Road Capacity:
How Fast is it Growing?

Proponents of highway capacity expansion often claim that road building is lagging far behind. The statistic they use to support this argument is that lane miles of roadways have grown by only two percent since 1990. But once we decode this figure, it is clear that this is an inaccurate way to assess the capacity of our surface transportation infrastructure.

From 1990 to 2000, lane miles of all roadways in the United States grew by slightly less than 2 (1.8) percent. The number is startlingly small, especially given the large increases in funding made available for surface transportation through the federal transportation laws ISTEA and TEA-21. How could this be? It turns out that the figure greatly misrepresents the capacity of the nation's roadway system. A closer look at the numbers from the Federal Highway Administration (FHWA) reveals why.

Where the Roads Are

Though most of the population lives in built-up areas and most driving occurs in these same areas, the vast majority of roads are in rural areas. According to the latest numbers from the FHWA, nearly 77 percent of the 8,223,393 lane miles of roads in the U.S. were located in rural areas in 2000. While the United States has a rural history, for the last century most of the population has lived in cities, suburbs, and towns. Statistics from the Federal Highway Administration show that in 2000 more than 72 percent of the population lived in urban areas (defined as central cities, towns, or urban clusters with a population of greater than 5,000 people and areas contiguous to that central place). More importantly, most (61 percent) of the miles driven in the U.S. are on urban roads. (see table, next page)
Where Capacity Is Growing

As completion of the Interstate system neared, investment in new roadway capacity to serve built-up areas where the majority of people live and drive has increased. So that while roadway capacity in rural areas has not grown, roadway capacity in metro areas has grown markedly, averaging more than 22,000 additional lane miles each year during the last decade. New numbers from FHWA show that lane miles of roadway in urban areas grew by more than 13 percent from 1990 to 2000. While some of the growth of the urban road network was due to re-classification, new roads and widenings accounted for 69 percent of the total growth.

<table>
<thead>
<tr>
<th>Urban Areas</th>
<th>Rural Areas</th>
<th>Number</th>
<th>Percent of Total</th>
<th>Number</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miles of Roadway</td>
<td>1,915,180</td>
<td>23.3%</td>
<td>6,308,213</td>
<td>76.7%</td>
<td></td>
</tr>
<tr>
<td>Miles Driven</td>
<td>1.665 Trillion</td>
<td>60.5%</td>
<td>1.085 Trillion</td>
<td>39.5%</td>
<td></td>
</tr>
<tr>
<td>Population</td>
<td>202,874,000</td>
<td>72.4%</td>
<td>77,392,000</td>
<td>27.6%</td>
<td></td>
</tr>
</tbody>
</table>

Because there are so many more miles of roadway in rural areas, this significant investment does little to move the total road mileage for the entire country. As a result, the national figure of 2 percent road growth has little relevance in a discussion of needed capacity.

Finally, it must be noted that rural roads, even with no capacity increase in recent years, are still far from carrying the volumes of traffic they were designed to. On a mile-per-mile basis, rural roads carry only 20 percent as much traffic as urban roads. Even if the number of miles driven on rural roads grew 250 percent, rural roads would carry only half as much traffic on a per-mile basis as urban roads. Transportation planners have not built new roads in rural areas because there is generally no need to increase capacity.

But Why Are Our Roads So Congested?

This discussion begs the question, given that roadway mileage in urban areas has been growing significantly, why does traffic congestion seem to be so much worse? It has more to do with our growing reliance on driving for daily tasks. For more on this, see Easing the Burden or Why Are the Roads So Congested? on STPPs website at www.transact.org.

Sources: